

REMARKS

The present Amendment is in response to the Examiner's Office Action mailed December 6, 2005. Claims 1-36 were pending. Claims 1, 8, 16, 30, and 36 are amended. Claims 1-36 remain pending in view of the above amendments.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicants' remarks are presented in the order in which the corresponding issues were raised in the Office Action.

Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited reference and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. In addition, Applicants request that the Examiner carefully review any references discussed below to ensure that Applicants' understanding and discussion of the references, if any, is consistent with the Examiner's understanding.

I. Objection to the Drawings

The Office Action objects to the drawings under 35 C.F.R. §1.84(p)(4), alleging that reference characters 72 and 74 have both been used to designate identical portions of the clamp portion as depicted in Figure 7B. In response, Applicants note that reference number 72 in Figure 7B indicates the circumferential surface of the clamp portion 60, a portion of which surface further includes a chamfer portion 74. To clarify this relationship, however, Figure 7B has been amended to more clearly indicate these features. Applicants submit that no new matter

has been added as a result of this amendment because each of the numbered elements was depicted in the drawings as originally submitted. For the Examiner's convenience, a replacement sheet including amended Figure 7B, together with an original sheet of this figure showing the changes made in red ink, are included as an attachment following page 26 of this Response. Entry of these drawing amendments and removal of the objection to the drawings is therefore respectfully solicited.

II. Objections to the Specification

The Office Action objects to paragraph [066] of the specification for containing a numerical informality. In particular, the Office Action alleges that the "evacuated enclosure portion 12A" on line 11 of paragraph [066] should instead be numbered "12," and that the "outer housing 12" on line 12 should instead be labeled "11." In response, Applicants have amended line 12 as requested by the Examiner. Line 11 remains unchanged, however, as it accurately reflects the portion of the evacuated enclosure 12, *i.e.* portion 12A, originally intended to be referenced in paragraph [066]. Applicants note that the evacuated enclosure portion 12A is shown in Figure 1, and is also discussed in paragraphs [039] and [041] of the specification. As such, entry of the above amendment, together with removal of the objection to the specification, is therefore respectfully requested by Applicants.

III. Rejections Under 35 U.S.C. § 102

The Office Action rejects claims 1 and 7 under 35 U.S.C. §102(e) as being anticipated by United States Patent No. 6,644,853 B1 to Kantor *et al.* ("*Kantor*"). However, *Kantor* – assuming *arguendo* that it and the other references cited herein qualify as prior art – fails to teach each and

every element of the pending claims, and thus is not an anticipatory reference. Applicants note that the teachings of *Kantor* have been discussed in previous submissions by Applicants.

The claimed invention is substantially distinct from the device taught by *Kantor*. In particular, amended independent claim 1 requires, in an x-ray tube, the presence of an evacuated enclosure, an outer housing containing the evacuated enclosure, and a mounting assembly for supporting the evacuated enclosure within the outer housing, wherein the mounting assembly comprises a first mounting portion that mechanically attaches to an outer surface of the outer housing, and “a second mounting portion that mechanically attaches to a portion of the evacuated enclosure, *wherein the evacuated enclosure is mechanically supported by the second portion, and wherein the second mounting portion is mechanically supported by the first mounting portion.*” *Kantor* discloses no such x-ray tube. Indeed, the purported “first mounting portion” 20 of *Kantor* does not support *Kantor*’s purported “second mounting portion” 54.

In particular, the purported “first mounting portion” 20 of *Kantor* is actually a tubular assembly 20, which “aims the x-ray tube head 16 toward the proper place on the examination subject’s face,” *Kantor*, col. 3, ll. 29-30. As such, and as seen in Figure 1, tubular assembly 20, as the purported “first mounting portion,” is actually supported by the x-ray tube head 16. In other words, tubular assembly 20 supports nothing, but rather is supported itself by the tube head 16. The tubular assembly 20 therefore cannot be considered anything akin to the first mounting portion described in amended claim 1, particularly with regard to its support of the second mounting portion. Accordingly, *Kantor* fails to teach or suggest each and every element of amended independent claim 1, and therefore cannot be used to anticipate the present invention. Further, inasmuch as claims 2-7 are variously dependent on independent claim 1, they are also allowable for the reasons given above. Applicants therefore respectively submit that each of the

above claims are patentably distinct and request that the Section 102 rejection in view of *Kantor* be withdrawn.

The Office Action also rejects claims 8, 9, 12-17, and 30-36 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,303,283 to Jedlitschka (“*Jedlitschka*”). Because, however, *Jedlitschka* fails to teach or suggest each and every claim limitation of the pending claims, Applicants respectfully traverse this rejection. Applicants note that the teachings of *Jedlitschka* have been discussed in previous submissions.

With respect first to claim 8, Applicants submit that the claimed invention is substantially different from the device taught in *Jedlitschka*. In particular, amended independent claim 8 requires, in an x-ray tube, the presence of a mounting assembly for joining an evacuated enclosure to an outer housing, wherein the mounting assembly includes a bracket portion that attaches to a portion of the outer housing of the x-ray tube, and “a clamp portion that frictionally engages a portion of the evacuated enclosure of the x-ray tube,” wherein “the clamp portion is also mechanically attached to the bracket portion *through an aperture defined in a surface of the outer housing.*” The disclosure of *Jedlitschka* fails to teach such a mounting assembly. In fact, the x-ray tube structure of *Jedlitschka* purported in the Office Action to teach the elements of the present claimed invention bears little, if any, similarity to the mounting assembly explicitly set forth in claim 8.

In particular, and as seen in Figure 1 of *Jedlitschka*, the purported and un-numbered “bracket portion” and the purported “clamp portion” 44 of *Jedlitschka* do not mechanically attach to one another through an aperture defined in a surface of the outer housing.

Instead, Figure 1 clearly shows that the purported “bracket portion” attaches to the purported “clamp portion” 44 entirely within the casing of *Jedlitschka*’s x-ray tube. In fact, the

disclosure of *Jedlitschka* teaches that the casing composed of parts 36, 38, 40, and 42 is assembled so as to be “imperviously sealed” (column 1, line 61), which would preclude the inclusion of an aperture defined in the outer housing surface through which the clamp portion and bracket portion mechanically attach, as explicitly required in claim 8.

Consequently, *Jedlitschka* fails to teach or suggest every element of amended independent claim 8 and thus cannot be used to anticipate the present invention. Further, claims 9-15 depend from claim 8 and are therefore also allowable for at least the reasons given above. Applicants therefore respectfully submit that the above claims are patentably distinct and request that the section 102 rejection in view of *Jedlitschka* be withdrawn.

Further, the Office Action notes that the limitation in independent claim 8 of an “x-ray tube” has not been given patentable weight because it is construed merely as an intended use for the mounting assembly. In response, Applicants suggest that the claim must be read in its intended context as an x-ray tube mounting assembly. In particular, each element of the mounting assembly in claim 8, *i.e.*, the bracket portion and clamp portion, engages portions of an x-ray tube explicitly set forth in claim 8: the bracket portion mechanically attaches “to a portion of the outer housing of the x-ray tube,” and the clamp portion frictionally engages “a portion of the evacuated enclosure of the x-ray tube.” Applicants therefore submit that the above limitations should be properly construed in light of their relation to the x-ray tube repeatedly called out in claim 8.

With respect to independent claim 16, Applicants submit that this claim is also patentably distinct from *Jedlitschka*. In particular, amended independent claim 16 discloses a method of joining an evacuated enclosure to a structure, wherein the evacuated enclosure includes a window assembly that is “attached to an aperture defined in the evacuated enclosure.” The

method of amended claim 16 further includes attaching a clamp portion of a mounting assembly to a bracket portion of the mounting assembly, and “attaching the clamp portion of the mounting assembly to the *window assembly attached to the evacuated enclosure*.” *Jedlitschka* fails to anticipate this method as disclosed in claim 16.

In particular, *Jedlitschka* fails to teach a window assembly that is attached to an aperture defined in the evacuated enclosure. Indeed, neither the disclosure nor the figures of *Jedlitschka* teach or suggest any sort of window assembly attached to the envelope 32. Rather, the envelope appears integral. As such, *Jedlitschka* fails to teach or suggest attaching a clamp portion of a mounting assembly to a window assembly that is *attached to* an evacuated enclosure, as explicitly required in claim 16.

Still, page 5 of the Office Action alleges that *Jedlitschka*’s envelope 32 itself serves as some sort of window assembly. It appears clear, however, that the envelope 32 corresponds more closely to the *evacuated enclosure* of claim 16, not the required attached *window assembly*. In light of the above analysis, therefore, Applicants submit that *Jedlitschka* fails to anticipate amended independent claim 16 for its failure to teach or suggest each and every limitation of this claim. Thus claim 16, and dependent claims 17-20 that depend therefrom are allowable, and the Section 102 in view of *Jedlitschka* should be withdrawn.

Amended independent claim 30 is also patentably distinct from *Jedlitschka*. In particular, amended claim 30 discloses an x-ray generating device including an x-ray tube having an evacuated enclosure and a mounting assembly that attaches the x-ray tube to a device body. The mounting assembly further includes a bracket portion that attaches to a portion of the device, and a clamp portion that engages a portion of the evacuated enclosure, “wherein the clamp portion is also mechanically attached to the bracket portion such that the mounting assembly *singularly*

supports the evacuated enclosure in a specified position with respect to the device body.” Similar to previous claims, *Jedlitschka* fails to teach this aspect of the present invention as well. Indeed, the structures of *Jedlitschka* purported by the Office Action to anticipate claim 30 include two distinct structures, *i.e.*, the un-numbered “clamp” and bracket 44 at the top of the envelope 32, and the un-numbered “clamp” and bracket 46 at the envelope bottom, to support the envelope. In contrast, the singular mounting assembly of amended claim 30 *alone* supports the evacuated enclosure. Accordingly, *Jedlitschka* fails to teach or suggest all the required elements of, and therefore fails to anticipate, independent claim 30. Therefore this claim, together with its corresponding dependent claims, is allowable, and Applicants respectfully solicit the removal of the rejection to these claims under Section 102.

Finally, amended independent claim 36 is also patentably distinct. In particular, claim 36 requires, in a mounting assembly for use in attaching an evacuated enclosure of an x-ray tube to a device, the presence of a bracket portion that attaches to a portion of the device, and “a clamp portion *having a C-shaped configuration*.” Indeed, the Office Action has indicated that a clamp portion having such a configuration as described in amended claim 36 is allowable, as suggested by the mere objection to present claims 4, 10, and 18 containing similar limitations. As such, Applicants submit that claim 36 is allowable as amended. Removal of the rejection of this claim under Section 102 is therefore respectfully solicited.

Claims 8-15 are rejected under 35 U.S.C. §102 (b) as being anticipated by U.S. Patent No. 5,492,780 to Okada (“*Okada*”). However, Applicants respectfully submit that *Okada* also fails to teach or suggest each of the elements of amended independent claim 8. As has been discussed, claim 8 generally discloses a mounting assembly for joining an evacuated enclosure of an x-ray tube to an outer housing that contains the evacuated enclosure. In particular, amended

independent claim 8 explicitly requires the mounting assembly of the x-ray tube to include a bracket portion “that mechanically attaches to the outer housing *of the x-ray tube*,” and a clamp portion “that frictionally engages a portion of the evacuated enclosure *of the x-ray tube* proximate an x-ray transmissive window.” None of these limitations are either taught or suggested by *Okada*. This fact is not surprising given the respectively disparate fields to which the present claimed invention and the cited art are directed: claim 8 is directed to an x-ray tube mounting assembly; *Okada*, to a terminal clamp for a battery post.

Moreover, the disclosed devices are further differentiated by their disclosed structure. For instance, claim 8 further defines the mounting assembly, wherein the clamp portion mechanically attaches to the bracket portion “through an aperture defined *in the outer housing surface*” *of the x-ray tube*. As the battery terminal clamp of *Okada* has an entirely distinct use and configuration from the claimed mounting assembly, it cannot and does not teach or suggest this limitation. Indeed, the purported “bracket portion” and “clamp portion” of *Okada*, *i.e.*, the terminal main body 11 and cylindrical member 20A-1, respectively, do not attach through any aperture of an x-ray tube outer housing, or other structure, but are rather attached to one another about a battery post.

Thus, the teachings and structure of *Okada* are simply insufficient to meet the explicit limitations of claim 8. Inasmuch as amended independent claim 8 cannot be viewed in a vacuum, each of its limitations must be taught by the cited art for a *prima facie* anticipation rejection under that art to be maintained. *Okada* fails to do this. As such, amended independent claim 8 and the claims that depend therefrom are allowable. Applicant therefore respectfully solicits the removal of the rejection to these claims under Section 102 with regard to *Okada*.

IV. Rejection Under 35 U.S.C. § 103

The Office Action rejects claims 2 and 3 under 35 U.S.C. §103(a) as being unpatentable over *Kantor* as applied to claim 1.

Applicants note that each of the above rejections is based upon the *Kantor* reference. It is further noted that each of the rejected claims above is dependent upon independent claim 1. As was previously discussed, the teachings of *Kantor* are inapplicable to the present invention as applied to independent claim 1 for failing to teach or suggest each of the limitations contained in those claims. Thus, *Kantor* is equally inapplicable to the present claims rejected under Section 103 for at least the same reasons, that is, its failure to teach or suggest all of the claim limitations contained not only in independent claim 1, but also the limitations contained in the present rejected dependent claims. Thus, the Examiner has failed to make out a *prima facie* case of obviousness. Applicants therefore submit that claims 2 and 3 are allowable and that the above rejection under Section 103 should be withdrawn.

V. Allowable Subject Matter

Claims 4-6, 10, 11, and 18-20 are objected to in the Office Action as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Because claims 4-6, 10, 11, and 18-20 are dependent upon one of the independent claims 1, 8, or 16, which independent claims are allowable for at least the reasons given above, Applicants submit that these dependent claims are also allowable and respectfully solicit the removal of the objection to claims 4-6, 10, 11 and 18-20. Applicants again wish to thank the Examiner for allowance of claims 21-29.

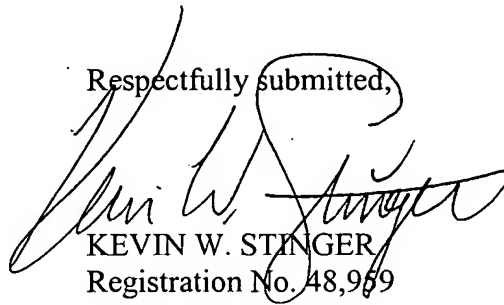
Applicants submit the following comments concerning the Examiner's statements of reasons for the indication of allowable subject matter in the Office Action. Applicants agree with the Examiner that the claimed invention of claims 21-29 is patentable over the prior art, but respectfully disagree with the Examiner's statement of reasons for allowance as set forth in Office Action. Applicants submit that it is the claim as a whole, rather than any particular limitation, that makes each of the claims allowable. No single limitation should be construed as the reason for allowance of a claim because it is each of the elements of the claim that makes it allowable. Therefore, Applicants do not concede that the reasons for allowable subject matter given by the Examiner are the only reasons that make, or would make, the claims allowable and do not make any admission or concession concerning the Examiner's statement in the Office Action.

CONCLUSION

In view of the foregoing, Applicants believe the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 8th day of May, 2006.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kevin W. Stinger", is written over the typed name and contact information.

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AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Figure 7B. This sheet replaces the original sheet including the same figure.

Attachment: Replacement Sheet

Annotated Sheet Showing Changes

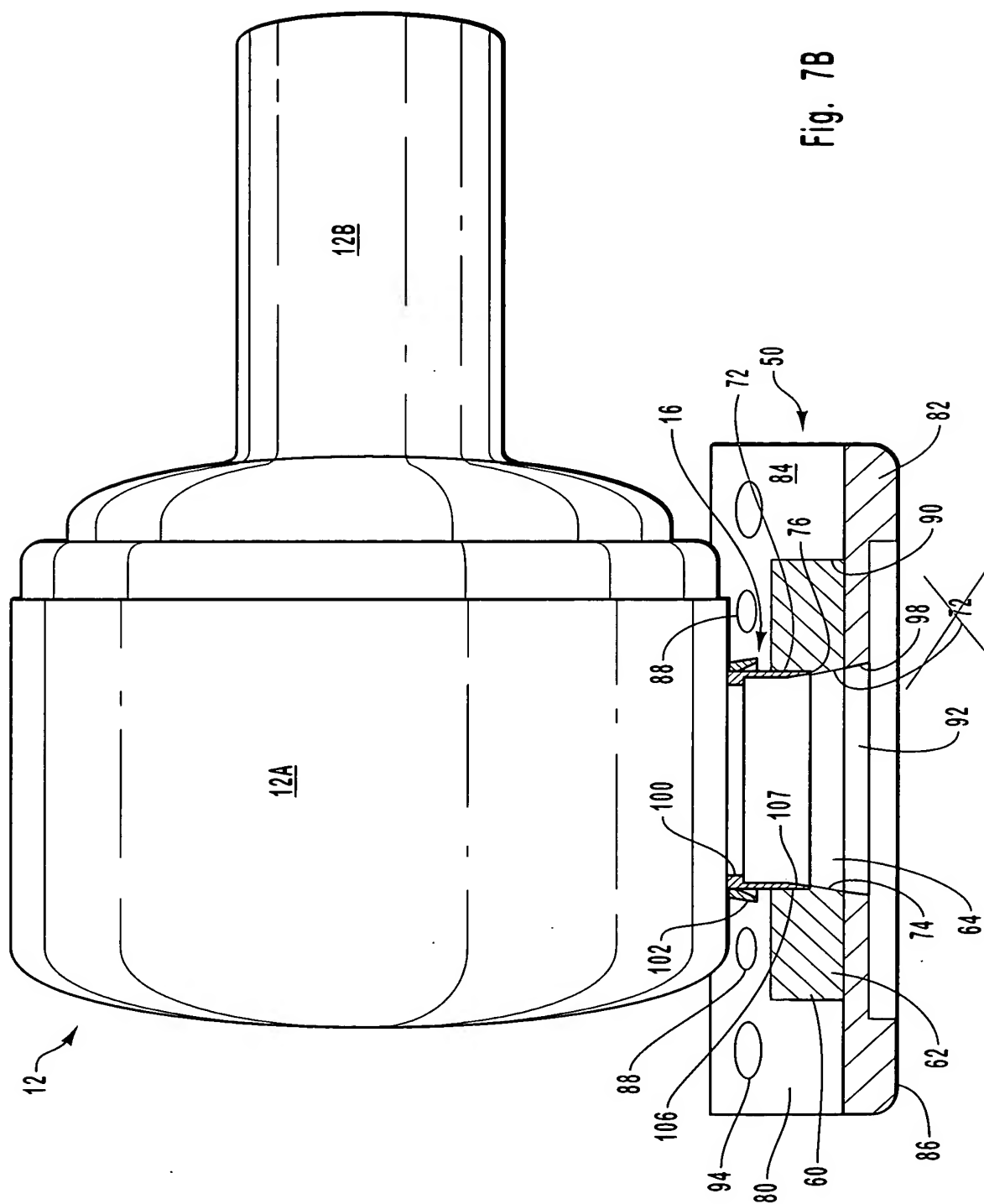


Fig. 7B